

*REMARKS*

In response to the Office Action mailed July 16, 2003, Applicants request reconsideration. It is proposed to cancel claim 4, leaving claims 1-3 pending upon entry of this Amendment.

The invention is directed to a lens barrel of a camera. The lens barrel includes a plurality of expanding, i.e., telescoping, cylindrical bodies. One of those cylindrical bodies is a leading, i.e., front, cylindrical body that includes an optical lens system. The optical lens system includes a plurality of lens groups, coaxially arranged within the leading cylindrical body. An important feature of the invention is that the lens system includes two fixed lens groups secured to the leading cylindrical body and at least one movable lens group movable within the leading cylindrical body relative to the two fixed lens groups. The invention is described in the patent application with respect to a camera that is shown in perspective views in Figures 1 and 2. The Amendment of claim 1 and the cancellation of claim 4 make even clearer that the invention is related to and concerns a camera.

An embodiment of a lens barrel according to the invention and employed in the camera is illustrated in Figures 11-15 of the patent application. That embodiment, as shown in Figure 15, includes several telescoping cylindrical bodies. In this depicted and described embodiment, the lens group 102 is movable with respect to the lens groups 101 and 103 and is interposed between those two fixed lens groups, as described in claim 2. The lens barrel arrangement described in the patent application with respect to the camera permits telephoto photography as well as close-up photography and intermediate range photography.

Claims 1-4 were rejected as unpatentable over Ito et al. (U.S. Patent 6,115,191, hereinafter Ito) in view of Kawamoto et al. (U.S. Patent 5,717,530, hereinafter Kawamoto). This rejection is respectfully traversed.

Ito is directed to a lens barrel for a camera that includes a plurality of telescoping cylindrical bodies. Three lens groups 120, 130, and 140 are provided within the lens barrel. As shown by Figures 3 and 4 of Ito, while the lens group 120 may be fixed with respect to a reference barrel 70, the lens groups 130 and 140 are movable, somewhat independently, with respect to the fixed lens group 120. Thus, Ito fails to describe the claimed invention because it lacks an optical lens system including at least two fixed lens groups.

Kawamoto was cited, particularly with respect to the limitation of claim 2, as disclosing a lens system including two fixed lenses with a movable lens located between the two fixed lenses. Kawamoto does not concern a camera. Kawamoto is directed to a

photocopier as described in the abstract of that patent as well as numerous locations in the specification, for example, at column 1, lines 11-13.

As understood, the rejection is based upon the supposition that one of skill in the art would replace the lens groups of Ito, including two movable lens groups and one fixed lens group, with the lens group of Kawamoto including two fixed lens groups with a movable lens group between the two fixed lens groups. Applicants respectfully disagree with this assertion.

In order to establish obviousness of a claim, it is essential that all of the elements of the claim be identified as being present in the prior art. However, this necessary requirement for establishing obviousness is not sufficient, by itself, to establish obviousness. Rather, an equally essential part of establishing *prima facie* obviousness is a demonstration that one of skill in the art would combine the elements found in separate prior art publications in the way that the elements are assembled in the invention.

“The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. [citation omitted.] It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of skill in the art would lead the individual to combine the relevant teachings of the references.” *In re Fine*, 5 USPQ2d 1596, 1598-1599 (Fed. Cir. 1988).

Just as in *Fine*, where the Court concluded that the USPTO had not met its burden, so the Office Action here relies upon knowledge of the invention, rather than the teachings of the references applied in the rejection, for the combination made of the respective elements of the two references.

The invention concerns a telescoping lens barrel of a camera so that different focal lengths can be achieved to provide versatility in use of the camera. Ito is directed to the same kind of technology, but uses lens groups that are more complex because two of the lens groups must be moved relative to the third lens group to achieve versatility in the camera.

By contrast, in photocopiers, i.e., the electrophotography art, there are considerations not present in the camera arts. The most pertinent one of those constraints for the present situation is the requirement that the photocopier apparatus be kept compact. In other words, the use of telescoping cylinders, as in the lens barrel of the invention and as in the lens barrel of Ito, is to be avoided. Such movable parts, changing in external dimension, must have sufficient space to avoid interference with other moving parts of the photocopier, making the

whole apparatus large, i.e., not compact. Nevertheless, it is important to provide a zoom lens in a photocopier so that images can be magnified and reduced. This zoom function is produced in the structure of Kawamoto by supplying the two fixed lenses on opposite sides of a movable lens. The Kawamoto lens system achieves the zoom function without changing the overall length of the apparatus regardless of the degree of magnification or reduction of an image by the lens system. This important feature of Kawamoto is referred to several times in that reference, for example, at column 2, lines 41-45 and lines 60-67.

“When the above-described zoom lens unit is used, since the magnification can be varied while the optical path length between the surface of the original and the surface of the photosensitive drum is maintained constant, *the size of the entire optical system can be reduced.*” [Emphasis supplied.]

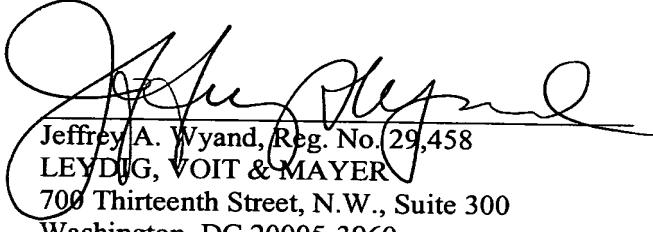
“Further, small-sized electrophotographic copying machines have been developed in recent years and small-sized zoom lenses have also been developed. However, this reduction in the size of the zoom lens increases the power of an optical lens (the degree at which the lens refracts light). Consequently, the lens retaining or lens position accuracy required for each lens barrel is increased, making the reduction in the size of the lens barrel difficult.”

One of skill in the art would not seek to modify the telescoping camera lens barrel of Ito with the photocopier compact zoom lens system of Kawamoto. First, nothing in either reference suggests a reason for the modification. Second, since an essential element of Kawamoto is maintaining a compact zoom lens apparatus, Ito would not be motivated to adopt the Kawamoto lens system because there is no necessity of making the telescoping lens barrel of Ito compact. In fact, adopting the compact lens system of Kawamoto could reduce the utility, i.e., the range of focal lengths, of a camera employing the Kawamoto lens system. The system of Kawamoto, quite useful in a photocopier having a limited range of zooming, may limit the ability of a camera employing the Ito lens barrel in the range of focal lengths available. In other words, a person of skill in the relevant arts would not look to Kawamoto at all in attempting to improve Ito and would not attempt to modify Ito with the compact zoom lens of Kawamoto because no positive result would be achieved. Accordingly, no motivation for modifying Ito with Kawamoto has been established, so that *prima facie*

obviousness has not been established as to claims 1-3. Upon reconsideration, the rejection should be withdrawn and claims 1-3 allowed.

Prompt and favorable action is earnestly solicited.

Respectfully submitted,

  
Jeffrey A. Wyand, Reg. No. 29,458  
LEYDIG, VOIT & MAYER  
700 Thirteenth Street, N.W., Suite 300  
Washington, DC 20005-3960  
(202) 737-6770 (telephone)  
(202) 737-6776 (facsimile)

Date: October 3, 2003  
JAW:ves